WHAT IS CLAIMED IS:

1. A method for producing a stereoscopic image from a display having N addressable pixels comprising the steps of:

generating N pixels of a first frame of an image directed to a view of an object a user experiences when said object is observed by said viewer's right eye;

generating N pixels of a second frame of said image directed to a view of said object a user experiences when said object is observed by said viewer's left eye;

receiving light from said N pixels in N optical elements for selectively directing light of said N pixels to said right eye in response to a first set of states of N corresponding control signals and to said left eye in response to a second set of states of said N control signals;

directing light from each of said N pixels of said first frame of said image to said right eye in a first time period by applying said first set of states of said N control signals to said N optical elements; and

directing light from said N pixels of said second frame of said image to said left eye in a second time period by applying said second set of states of said N control signals to said N optical elements.

2. The method of claim 1, wherein said first and second time periods corresponds to one half the period of a frame rate such that said first and second frames of said image of said object appear as a stereoscopic image to said viewer.

3. The method of claim 1 further comprising the step of:

selectively biasing said first and second sets of states of said N control signals to optimize said stereoscopic image perceived by said viewer.

4. The method of claim 1 further comprising the step of:

selectively adjusting biases of said first and second set of states to compensate for variations in said display.

5. The method of claim 1, wherein each of said N optical elements for selectively directing light of said N pixels of said image comprises:

a prism/lense element oriented over each of said N pixels and coupled to a piezoelectric element for modifying an orientation of said prism/lense element relative to each corresponding pixel of said display in response to one of said N control signals.

6. The method of claim 1, wherein said optical element for selectively directing light of said N pixels of said image comprises:

a prism/lense element oriented over each of said N pixels and coupled to an electrostatic element for modifying an orientation of said prism/lense element relative to a pixel of said display in response to one said N control signals.

7. The method of claim 5, wherein said piezoelectric element operates to bend a beam coupled to said prism/lense element.

8. The method of claim 6, wherein said electrostatic element bends a beam coupled to said prism/lense element.

9. The method of claim 5, wherein said piezoelectric element rotates said prism/lense element around a torsional support beam.

10. The method of claim 6, wherein said electrostatic element rotates said prism/lense element around a torsional support beam.

11. An apparatus for producing a stereoscopic image comprising:

a display comprising N addressable pixels for producing a first frame of an image directed to a view a user experiences when an object is observed by said viewer's right eye and producing a second frame of said image directed to a view said user experiences when said object is observed by said viewer's left eye;

N optical elements for selectively directing light from N pixels of said image to said right eye in response to a first set of levels of N control signals and to said left eye in response to a second set of levels of said N control signals;

circuitry for directing N pixels of said first frame of said image to said right eye in a first time period by applying said first set of levels of said N control signals to said N optical elements; and

circuitry for directing N pixels of said second frame of said image to said left eye in a second time period by applying said second set of levels of said N control signals to said N optical elements.

12. The apparatus of claim 11, wherein said first and second time periods correspond to one half the period of a frame rate such that said first and second frames of said image of said object appear as a stereoscopic image to said viewer.

13. The apparatus of claim 11 further comprising:

circuitry for selectively biasing said first and second sets of states of said N control signals to optimize said stereoscopic image perceived by said viewer.

14. The apparatus of claim 11 further comprising:

circuitry for selectively adjusting biases of said first and second set of states of said N control signals to compensate for variations in said display.

15. The apparatus of claim 11, wherein each of said optical elements for selectively directing light of said N pixels of said image comprises:

a prism/lense element oriented over each of said N pixels and coupled to a piezoelectric element for modifying an orientation of said prism/lense element relative to each corresponding pixel of said display in response to one of said N control signals.

16. The apparatus of claim 11, wherein each of said optical elements for selectively directing light of said N pixels of said image comprises:

a prism/lense element oriented over each of said N pixels and coupled to an electrostatic element for modifying an orientation of said prism/lense element relative to a pixel of said display in response to said N control signals.

17. The apparatus of claim 15, wherein said piezoelectric element operates to bend a beam coupled to said prism/lense element.

18. The apparatus of claim 16, wherein said electrostatic element bends a beam coupled to said prism/lense element.

19. The apparatus of claim 15, wherein said piezoelectric element rotates said prism/lense element around a torsional support beam.

20. The apparatus of claim 16, wherein said electrostatic element rotates said prism/lense element around a torsional support beam.

21. A data processing system comprising:

a central processing unit (CPU);

a random access memory (RAM);

a display adapter;

a display coupled to said display adapter; and

a bus system coupling said CPU to display adapter and said RAM, wherein said display further comprises;

N addressable pixels for producing a first frame of an image directed to a view a user experiences when an object is observed by said viewer's right eye and producing a second frame of said image directed to a view said user experiences when said object is observed by said viewer's left eye;

N optical elements for selectively directing light from N pixels of said image to said right eye in response to a first set of levels of N control signals and to said left eye in response to a second set of levels of said N control signals;

circuitry for directing N pixels of said first frame of said image to said right eye in a first time period by applying said first set of levels of said N control signals to said N optical elements; and

circuitry for directing N pixels of said second frame of said image to said left eye in a second time period by applying said second set of levels of said N control signals to said N optical elements.

22. The data processing system of claim 21, wherein said first and second time periods correspond to one half the period of a frame rate such that said first and second frames of said image of said object appear as a stereoscopic image to said viewer.

23. The data processing system of claim 21 further comprising:

circuitry for selectively biasing said first and second sets of states of said N control signals to optimize said stereoscopic image perceived by said viewer.

24. The data processing system of claim 21 further comprising:

circuitry for selectively adjusting biases of said first and second set of states of said N control signals to compensate for variations in said display.

25. The data processing system of claim 21, wherein each of said optical elements for selectively directing light of said N pixels of said image comprises:

a prism/lense element oriented over each of said N pixels and coupled to a piezoelectric element for modifying an orientation of said prism/lense element relative to each corresponding pixel of said display in response to one of said N control signals.

26. The data processing system of claim 21, wherein each of said optical elements for selectively directing light of said N pixels of said image comprises:

a prism/lense element oriented over each of said N pixels and coupled to an electrostatic element for modifying an orientation of said prism/lense element relative to a pixel of said display in response to said N control signals.

27. The data processing system of claim 25, wherein said piezoelectric element operates to bend a beam coupled to said prism/lense element.

28. The data processing system of claim 26, wherein said electrostatic element bends a beam coupled to said prism/lense element.

29. The data processing system of claim 25, wherein said piezoelectric element rotates said prism/lense element around a torsional support beam.

30. The data processing system of claim 26, wherein said electrostatic element rotates said prism/lense element around a torsional support beam.

31. A method for producing a stereoscopic display having N addressable pixels comprising the steps of:

1) randomly selecting, during a first time period Tk, N/2 pixels of N pixels of a first frame of an image directed to a view of an object a user experiences when said object is observed by said viewer's right eye;

2) selecting, during said first time period Tk, the remaining N/2 pixels of said N pixels of a second frame of said image directed to a view of said object a user experiences when said object is observed by said viewer's left eye;

3) receiving light from each of said N pixels in an optical element for selectively directing light of said N pixels to said right eye in response to a first set of states of N corresponding control signals and to said left eye in response to a second set of states of said N control signals;

4) directing light from said N/2 randomly selected pixels of said first frame of said image to said right eye in said first time period Tk by applying said first set of states of corresponding N/2 of said N control signals to said optical element for selectively directing said N pixels;

5) directing light from said N/2 remaining pixels of said second frame of said image to said left eye in said first time period Tk by applying said second set of states of said N control signals to said optical element for selectively directing said light of said N pixels; and

6) repeating said steps 1) through 5) until a sum of said repeated time periods Tk equals a second time period T corresponding to a frame rate of said image during which time data defining said image does not change.

32. The method of claim 31 further comprising the step of:

selectively biasing said first and second sets of states of said N control signals to optimize said stereoscopic image perceived by said viewer.

33. The method of claim 31 further comprising the step of:

selectively adjusting biases of said first and second set of states of said N control signals to compensate for variations in said display.

34. The method of claim 31, wherein each of said optical elements for selectively directing light of said pixels of said image comprises:

a prism/lense element oriented over each of said N pixels and coupled to a piezoelectric element for modifying an orientation of said prism/lense element relative to each corresponding pixel of said display in response to one said N control signals.

35. The method of claim 31, wherein each of said optical elements for selectively directing light of said pixels of said image comprises:

a prism/lense element oriented over each of said pixels and coupled to an electrostatic element for modifying an orientation of said prism/lense element relative to each corresponding pixel of said display in response to one of said N control signals.

36. The method of claim 34, wherein said piezoelectric element bends a beam coupled to said prism/lense element.

37. The method of claim 35, wherein said electrostatic element bends a beam coupled to said prism/lense element.

38. The method of claim 34, wherein said piezoelectric element rotates said prism/lense element around a torsional support beam.

39. The method of claim 35, wherein said electrostatic element rotates said prism/lense element around a torsional support beam.

40. An optical element for directing light from each pixel in an array of N pixels of a display comprising:

a prism/lense element having a flat first surface and a curved second surface and placed above and substantially parallel to said pixel;

a flexible beam coupled to said prism/lense element and placed above and parallel to said pixel; and

a piezoelectric element coupled to a surface of said flexible beam, said piezoelectric element having first and second voltage contacts integrated across an axis of elongation and contraction of said piezoelectric element, said first voltage contact coupled to a first control voltage and said second voltage contact coupled to a second control voltage.

41. The optical element of claim 40, wherein said prism/lense element is positioned relative to said pixel in response to voltage levels of said first and second control voltages causing said piezoelectric element to expand and contract thereby bending said flexible beam.

42. The optical element of claim 40, wherein said curved second surface of said prism/lense element focuses light from said pixel.

43. An optical element for directing light from a pixel in an array of N pixels of a display comprising:

a prism/lense element having a flat first surface and a curved second surface and placed above and substantially parallel to said pixel;

a flexible beam coupled to said prism/lense element and placed above and parallel to said pixel;

a first metallic surface placed on a surface of said flexible beam, said first metallic surface coupled to a first voltage; and

a second metallic surface placed parallel and opposing said first metallic surface, said second metallic surface coupled to a second voltage, said first and second metallic surfaces forming an electrostatic element with a gap between said first and second metallic surfaces.

44. The optical element of claim 43, wherein said prism/lense element is positioned relative to said pixel in response to voltage levels of said first and second control voltages causing said gap of said electrostatic element close thereby bending said flexible beam.

45. The optical element of claim 43, wherein said curved second surface of said prism/lense element focuses light from said pixel.

46. An optical element for directing light from a pixel in an array of N pixels of a display comprising:

a prism/lense element having a flat first surface and a curved second surface and placed above and substantially parallel to said pixel;

a flexible beam coupled to said prism/lense element and placed above and parallel to said pixel; and

a piezoelectric element coupled to a bottom surface of said flexible beam and to a stationary surface parallel and opposed to said flexible beam, said piezoelectric element having first and second voltage contacts integrated across an axis of elongation and contraction of said piezoelectric element, said first voltage contact coupled to a first control voltage and said second voltage contact coupled to a second control voltage.

47. The optical element of claim 46, wherein said prism/lense element is positioned relative to said pixel in response to voltage levels of said first and second control voltages causing said piezoelectric element to expand and contract thereby bending said flexible beam.

48. The optical element of claim 46, wherein said curved second surface of said prism/lense element focuses light from said pixel.

49. An optical element for directing light from a pixel in an array of N pixels of a display comprising:

a prism/lense element having a flat first surface and a curved second surface and placed above and substantially parallel to said pixel;

a torsional beam coupled to a first side of said prism/lense element suspending said prism/lense element substantially parallel to said pixel; and

a first piezoelectric element coupled to a second side of said prism/lense element, said second side parallel to an axis of said torsional beam, said first piezoelectric element having first and second voltage contacts coupled across an axis of expansion and contraction of said first piezoelectric element, said first and second voltage contacts coupled to first and second control voltages.

50. The optical element of claim 49, wherein said prism/lense element is positioned relative to said pixel in response to voltage levels of said first and second control voltages causing said first piezoelectric element to expand and contract thereby rotating said prism/lense element about said torsional beam.

51. The optical element of claim 49, wherein said curved second surface of said prism/lense element focuses light from said pixel.

52. The optical element of claim 49, wherein a second piezoelectric element is coupled to a third side of said prism/lense element, said third side parallel to said axis of said torsional beam, said piezoelectric element having third and fourth voltage contacts coupled across an axis of expansion and contraction of said second piezoelectric element, said third and fourth voltage contacts coupled to said first and second control voltages.

53. The optical element of claim 52, wherein said second piezoelectric element expands and contracts in opposition to said first piezoelectric element.

54. The optical element of claim 49, wherein a second torsional beam is coupled to a fourth side of said prism/lense element said fourth side parallel to and opposite said first side.